

1 ABSTRACT OF THE DISCLOSURE

2 The invention encompasses epoxies, epoxy systems, and methods
3 of forming conductive adhesive connections between electrical nodes.
4 In one aspect, the invention includes a method comprising: a) providing
5 a first node; b) providing a second node; c) providing a liquid
6 conductive epoxy mixture between the first and second nodes, the liquid
- conductive epoxy mixture comprising a first liquid and a second liquid,
8 the liquid conductive epoxy mixture having sufficient conductivity that a
9 15 mil length sample of the liquid conductive epoxy having cross-
10 sectional dimensions of 50 mil by 2 mil would have a resistance of less
11 than about 100 ohms along its length between about 10 minutes and
12 about 20 minutes of combining the first and second liquids; and d)
13 curing the liquid conductive epoxy to form a conductive adhesive
14 connection between the first node and the second node. In another
15 aspect, the invention includes an epoxy comprising: a) a liquid mixture
16 of a hardener and a base epoxy; and b) a concentration of an ionic
17 salt within the liquid mixture, the concentration of the ionic salt being
18 high enough that a 15 mil length sample of the liquid mixture having
19 cross-sectional dimensions of 50 mil by 2 mil would have a resistance
20 of less than about 100 ohms along its length in less than or equal to
21 about 30 minutes of forming the liquid mixture.